



THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT POLICY

Voluntary    Public

**Date:** 11/24/2014

**GAIN Report Number:** CH 14053

## **China - Peoples Republic of**

**Post:** Beijing

### **China Announces a Standard Revision for Sports Nutritional Foods (SPS/N/CHN/690)**

**Report Categories:**

FAIRS Subject Report

**Approved By:**

Michael Riedel

**Prepared By:**

Jennifer Clever and Ma Jie

**Report Highlights:**

On October 22, 2014, China notified the WTO of a new General Standard for Sports Nutritional Food as SPS/N/CHN/690. Comments could be sent to the China's SPS Enquiry Point at [sps@aqsiq.gov.cn](mailto:sps@aqsiq.gov.cn) before December 20, 2014. The proposed date for implementation is yet to be determined.

This report provides an UNOFFICIAL translation of the standard.

# **National Food Safety Standard - General Standard for Sports Nutrition Food**

## **Foreword**

This Standard replaces the General Standard for Sports Nutrition Food (GB/T 24154-2009), and integrated relevant contents in the Sports Nutrition Food - Energy Supplement (QB/T 2831-2006), Sports Nutrition Food - Protein Supplement (QB/T 2832-2006), Sports Nutrition Food - Low Energy Food (QB/T 2833-2006), Sports Nutrition Food - Edible Creatine (QB/T 2834-2006), Sports Nutrition Food - Nutrients for Active Men (QB/T 2895-2007), as well as relevant contents in the “Provisions for Use of Food Additives and Food Nutrition Fortification Substances in Sports Nutritional Foods” (Public Notice of the Ministry of Health [2008] No.18).

This standard modifies the GB/T 24154-2009 in the following aspects:

- Clarifies the “Terminology and Definition”;
- Modifies description of the “Product Categorization”; combined the “Supplemental Vitamins and Minerals” section and the “Nutritional Substances that Supplement and Recover Sports Fatigue” section to the “Contents that Supplement Sports Nutrition Needs” section, removes the section of “Others”;
- Adds “Sensory Requirements”;
- Adds the general rules of “Technical Specifications”;
- Removes the technical specifications of the “Reconstitution Foods for Energy Supplement” in the “Energy Supplemental Foods Category”;
- Modifies the product categorization of the “Low Energy Foods”;
- Modifies the “Type C Sports Persons”;
- Adds the technical specifications for Contents that Supplement Sports Nutrition Needs;
- Adds the provisions of the “Levels of Contaminants”;
- Adds the provisions of the “Levels of Mycotoxins”;
- Adds the provisions of the “Levels of Microorganisms”;
- Modifies the provisions of the nutrition fortification substances (or nutritional content);
- Modifies the provisions of labeling;
- Modifies the Appendix A;
- Removed the Appendix B (The Protein Digestibility–Corrected Amino Acid Score, PDCAAS).

**National Food Safety Standard**

## **General Standard for Sports Nutrition Food**

### **1. Scope**

This standard applies to sports nutritional foods.

### **2. Terminologies and definitions**

#### **Sport nutritional foods**

Foods that are specially processed for persons engage in sports and physical activities that have special needs for physiological metabolism status, sports ability, and nutritional contents.

### **3. Product Categorization**

#### **3.1 Energy Supplemental Foods**

It refers to sports nutritional foods with carbohydrates as the major content, which could quickly and continuously supply energy.

#### **3.2 Low Energy Foods**

The low energy foods could be further categorized to energy burning foods and energy substitutes. The energy burning foods do not contain, or contain low energy/fats, which promotes energy burning and expenditure in sports activities; the energy substitutes feature low energy density, which reduce energy intake, but supplement protein needed in sport activities.

#### **3.3 Protein and/or Protein Hydrolysates Supplements**

It refers to sports nutritional foods with protein and/or protein hydrolysates as the major content; it satisfies needs for body tissue formation, growth and repair.

#### **3.4 Foods that supplement nutritional contents needed in sports activities**

It refers to sports nutritional foods that supplement vitamins, minerals, and other nutritional content needed in special sport activities.

#### **3.5 Nutrition Supplement Compounds**

It refers to sports nutritional foods with carbohydrates, protein and fat as the major content; it satisfies body's basic needs in sport activities.

### **4. Technical Requirements**

#### **4.1 Basic Requirements**

Materials used to produce sports nutritional foods shall comply with relevant standards and/or relevant provisions; substances prohibited by the World Anti-Doping Organization shall not be added to sports nutritional foods.

#### 4.2 Sensory Requirements

The color, taste, smell, texture and reconstitution of the sports nutritional foods should conform to the characteristics of the products. Visible foreign materials should not be found.

#### 4.3 Technical Specifications

##### 4.3.1 General Rules

Products from 4.3.2 to 4.3.6, while complying with technical specifications, could be added with one or multiple nutritional contents listed in the Appendix A. The amount of the added nutritional content shall comply with provisions in Appendix A.

##### 4.3.2 Energy Supplemental Foods

The energy supplemental foods shall comply with provisions in the Table 1.

**Table 1 Technical Specifications for Energy Supplemental Foods**

| Item   | Specifications |                        |
|--|----------------|------------------------|
|  | Solid          | Semi - solid or liquid |
| Energy/(kJ, 100g) or (kJ/100mL) $\geq$                           | 1500           | 150                    |
| Percentage of energy of carbohydrates in total energy (%) $\geq$ | 65             |                        |

##### 4.3.3 Low Energy Foods

The Low energy foods shall comply with provisions in the Table 2.

**Table 2 Technical Specification for Low Energy Foods**

| Item  | Specifications |                        |                    |                     |
|---|----------------|------------------------|--------------------|---------------------|
|   | Energy Burning |                        | Energy Substitute  |                     |
|   | Solid          | Semi - solid or liquid | Partial substitute | Complete substitute |
| Energy/(kJ, 100g) or (kJ/100mL) ≤                     | 300            | 80                     | --                 | --                  |
| Energy / (kJ)   | --             |                        | 835-1670/meal      | 3350-5020/day       |
| Percentage of energy of protein in total energy (%) ≥ | --             |                        | 25                 |                     |
| Percentage of energy of fat in total energy (%) ≥     | 25             |                        |                    |                     |

##### 4.3.4 Protein and/or Protein Hydrolysates Supplements

Protein content in the protein and/or protein hydrolysates supplements shall comply with provisions in the Table 3; percentage of the premium protein shall be at least 50%.

**Table 3 Technical Specification for Protein and/or Protein Hydrolysates Supplements**

| Item  | Specifications |                        |                       |
|---|----------------|------------------------|-----------------------|
|   | Solid          | Semi - solid or liquid | Reconstitute to drink |
| Protein <sup>a</sup> / (g/100g) or (g/100mL) $\geq$ | 15             | 4                      | 50                    |

|   |    |   |   |
|---|----|---|---|
| Fat / (g/100g) or (g/100mL) ≤                           | 15 | 1 | 6 |
| <sup>a</sup> Calculation of protein content, (N) *6.25. |    |   |   |

#### 4.3.5 Foods that supplement nutritional contents needed in sports activities

4.3.5.1 The foods, pursuant to needs by people participating in different sport activities, could be categorized to the following categories:

Nutritional content needed by A-type sports: for people who engage in activities that maintain and enhance speed, build muscles, and increase strength, such as dashes, high jump, balls, weightlifting, wrestling, judo, taekwondo, bodybuilding and body strength exercises.

Nutritional content needed by B-type sports: for people who engage in activities to improve endurance in aerobic exercises, such as mid/long distance running, jogging, fast walk, cycling, swimming, rowing, aerobics, dancing, and outdoor activities, etc.

Nutritional content needed by C-type sports: for people to improve bone and joints nutrition/health.

Nutritional content needed by D-type sports: for people who are recovering from mid/high-intensity, or long time activities.

4.3.5.2 The mandatory contents and suggested content of the nutritional content supplements shall comply with provisions in the Table 4; the amount of the content shall comply with provisions in the Appendix A.

**Table 4 Technical Requirements for substances that supplement nutritional contents needed in sports activities**

| Product category | Technical requirements for nutritional content |  |
|------------------|--|--|
|                  | Mandatory content                              | Suggested content  |
| A                | Creatine                                       | Glutamine, calcium, $\beta$ -hydroxy $\beta$ -methyl butyrate, b-lactamic acid, 1,6 Fructose Diphosphate |
| B                | Vitamin B1, Vitamin B2                         | Peptide, L-carnitine, caffeine, Lycopene, EGCG, Vitamin B6   |
| C                | Calcium  | Vitamin D  |
| C                | Peptide  | Glutamine, $\beta$ -lactamic acid, Lycopene, EGCG  |

#### 4.3.6 Compound nutritional supplements

Compound nutritional supplements shall comply with provisions in the Table 5.

**Table 5 Technical Specifications for Compound Nutritional Supplements**

| Item   | Specifications |
|--|----------------|
| Percentage of energy of protein in total energy (%) $\geq$ | 12             |
| Percentage of energy of fat in total energy (%) $\leq$     | 30             |
| Energy/(kJ, 100g) $\geq$                                   | 800            |

#### 4.4 Levels of Contaminants in Foods

Levels of contaminants in foods shall comply with provisions in the Table 6.

**Table 6 Levels of Contaminants in Foods (measured by solid product)**

| Item                           | Specifications | Testing Method |
|--------------------------------|----------------|----------------|
| Lead / (mg/kg) $\leq$          | 0.5            | GB 5009.12     |
| Total arsenic / (mg/kg) $\leq$ | 0.5            | GB 5009.11     |

#### 4.5 Levels of Mycotoxins in Foods

Levels of Mycotoxins in foods shall comply with provisions in the Table 7.

**Table 7 Levels of Mycotoxins (measured by solid product)**

| Item   | Specifications | Testing Method |
|--|----------------|----------------|
| Aflatoxin M1 (µg/kg) a ≤   | 0.5            | GB 5009.24     |
| Aflatoxin B1 (µg/kg) b ≤   | 0.5            |                |
| a Only applicable to products with dairy and dairy protein products as the major material. |                |                |
| b Only applicable to product with beans and soy protein products as the major material.    |                |                |

#### 4.6 Levels of Microorganisms

Levels of microorganisms in solid products shall comply with provisions in the Table 8; level of microorganisms in liquid products shall comply with provisions for commercial sterilization, using testing methods provided in the GB/T4789.26. Level of microorganism shall comply with provisions in the Table 8.

**Table 8 Levels of Microorganisms**

|  | Sampling plan <sup>a</sup> and limits (expressed in the unit of cfu/g unless otherwise required) |   |       |     | Testing Method                 |
|--|--|---|-------|-----|--------------------------------|
|  | n  | c | m     | M   |                                |
| Salmonella   | 5  | 0 | 0/25g | --  | GB 4789.4                      |
| Staphylococcus aureus  | 5  | 2 | 10    | 100 | GB 4789.10 Baird-Parker Method |
| <sup>a</sup> Analysis and handling of samples shall follow GB 4789.1 and GB 4789.18. |  |   |       |     |                                |

#### 4.7 Food additives and nutrition fortification substances (or nutritional content)

4.7.1 Use of food additives in sports nutritional foods shall refer to GB 2760 for food additives and levels allowed in the same or similar food categories.

4.7.2 Type and suggested daily intake of nutrition fortification substances (or nutritional content) shall comply with provisions in the Appendix A. Sources of nutrition fortification substances (or nutritional content) compounds shall comply with GB 14880 or relevant regulations in China.

4.7.3 Quality specifications of the food additives and nutrition fortification substances shall comply with relevant standards and provisions.

## 5 Labeling

5.1 Product labeling shall comply with provisions in the GB13432.

5.2 The label shall mark “Sports Nutrition Food” in the major display side.

5.3 The label shall indicate product categorization at the appropriate place.

### Appendix A

#### Rules for Using Nutritional Fortification Substances (or Nutritional Content) in Foods

Sports nutritional foods could be added with one or multiple nutrition fortification substances (or nutritional content) listed in the Appendix A.

**Table A Types of Nutritional Fortification Substances (or Nutritional Content) and suggested Daily Intake**

| Type                   | Reference daily intake | Testing Method              |
|------------------------|------------------------|-----------------------------|
| Vitamin A/(μg RE)      | 120-1000               | GB 5413.9 or GB/T 5009.82   |
| Vitamin D/(μg)         | 1.5-12.5               | GB 5413.9                   |
| Vitamin E/(mg α-TE)    | 2.1-150                | GB 5413.9 or GB/T 5009.82   |
| Vitamin K/(μg)         | 20-100                 | GB 5413.10 or GB/T 5009.158 |
| Vitamin B1/(mg)        | 0.2-20                 | GB 5413.11 or GB/T 5009.84  |
| Vitamin B2/(mg)        | 0.2-20                 | GB 5413.12                  |
| Vitamin B6/(mg)        | 0.2-10                 | GB 5413.13 or GB/T 5009.154 |
| Vitamin B12/(μg)       | 0.4-10                 | GB 5413.14                  |
| Vitamin C/(mg)         | 15-500                 | GB 5413.18                  |
| Folic acid (μg)        | 60-400                 | GB 5413.16 or GB/T 5009.211 |
| Nicotinic acid /(mg)   | 2.1-30                 | GB 5413.15 or GB/T 5009.89  |
| Choline /(mg)          | 75-1500                | GB/T 5413.20                |
| Biotin /(μg)           | 4.5-100                | GB 5413.19                  |
| Pantothenic acid /(mg) | 0.8-20                 | GB 5413.17 or GB/T 5009.210 |
| Calcium /(mg)          | 150-1600               | GB 5413.21 or GB/T 5009.92  |
| Sodium /(mg)           | 700-1600               | GB 5413.21 or GB/T 5009.91  |
| potassium /(mg)        | 300-3000               | GB 5413.21 or GB/T 5009.91  |
| Magnesium /(mg)        | 53-640                 | GB 5413.21 or GB/T 5009.90  |
| Iron /(mg)             | 2.3-25                 | GB 5413.21 or GB/T 5009.90  |
| Zinc /(mg)             | 1.7-25                 | GB 5413.21 or GB/T 5009.14  |
| Selenium /(μg)         | 7.5-150                | GB 5009.93                  |
| Copper /(mg)           | 0.3-1.5                | GB 5413.21 or GB/T 5009.13  |
| Iodine /(μg)           | 22.5-100               | GB 5413.23                  |
| Manganese /(mg)        | 0.5-3.0                | GB 5413.21 or GB/T 5009.90  |
| phosphorus /(mg)       | 105-1000               | GB 5413.22 or GB/T 5009.87  |
| Molybdenum /(μg)       | 80-250                 | --                          |

|   |          |                             |
|---|----------|-----------------------------|
| Chromium /(μg)                              | 16-100   | GB/T 5009.123               |
| L-carnitine/(g)                             | 1-4      | --                          |
| Taurine/(g)                                 | 1-6      | GB 5413.26 or GB/T 5009.169 |
| Caffeine/( mg)                              | 20-100   | GB/T 5009.139               |
| Guarana Extract (measured by caffeine)/(mg) | 20-100   | GB/T 5009.139               |
| Creatine/(g)                                | 1-3      | --                          |
| Glutamine /(g)                              | 3.5-15.0 | --                          |
| γ- aminobutyric acid /(mg)                  | 25-100   | --                          |
| Phosphatidylserine /(mg)                    | 300-600  | --                          |
| Peptide /(g)                                | 1-6      | GB/T 22729                  |
| Calcium β- hydroxy -β- methyl butyrate /(g) | 1-3      | --                          |
| 1,6 Fructose Diphosphate/(g)                | 0.3-1.8  | --                          |
| EGCG /(mg)                                  | 100-300  | --                          |
| Lycopene / (mg)                             | 10-20    |                             |
| b-lactamic acid /(g)                        | 1.6-6.4  |                             |
| L-Arginine /(g)                             | 3-6      |                             |
| Leucine /(g)                                | 1.5-3    |                             |
| Isoleucine /(g)                             | 0.75-1.5 |                             |
| Valine /(g)                                 | 0.75-1.5 |                             |